

Abstract:

Background: Prostate cancer is the most common cancer in American men and is now the second leading cause of cancer death in men, exceeded only by lung cancer. It is estimated that in 2003, approximately 220,900 new cases and 28,900 prostate cancer related deaths will occur in the United States. The natural history of prostate cancer is not very well understood, although three main risk factors have been identified; age, African American race and family history.

Survival in men with prostate cancer is related to many factors, one of the most important being extension of the tumor beyond the prostate capsule at the time of diagnosis. Therefore, a screening program for prostate cancer should ideally identify those men with more aggressive tumors that have not spread beyond the prostate capsule. One of the most controversial topics of discussion in prostate cancer has been regarding the efficacy of screening. The goal of screening is to detect disease early enough that intervention can be applied so as to reduce mortality, however this has not been proven in regards to the modalities used for prostate cancer screening.

Despite the variations in recommendations for screening, some clinicians and researchers believe there is benefit to screening at risk men, particularly African Americans and those with a family history of prostate cancer. However, many men in these high-risk categories, for a variety of reasons, do not participate in prostate cancer screening. Men who have been identified as least likely to participate in prostate cancer screenings are African American, 50-59 years of age, and those with low SES. Predictors of participation in health promoting behaviors such as cancer screening that have been documented in the literature include demographics and perceived benefits. Demographics include age, race and socioeconomic status. Perceived benefits are described as beliefs about the effectiveness of the recommended action in reducing the health threat. The purpose of this work is to identify factors associated with sustained participation in free prostate cancer screening programs among high risk men.

Methods: This is a case-control study of participants in a free prostate cancer screening program database. The men volunteered for screening at the annual free screening program at least one year during the study period from 1998-2001. Demographic data was collected from all screening participants and entered into a database. The participants were also asked to include the most important reason they chose to participate in a free prostate cancer screening program. Analysis of the demographic data includes identification of predictors of men who are non-sustainers, and how they compare to sustainers. Non-sustainers are identified as men who participated in screening one year, but did not participate in subsequent years.

Results: There were 1024 participants in the free prostate cancer screening program. Thirty-six percent were identified as sustainers. Whites were more likely than African Americans to be sustainers, however this was not significant. Those with some college education or more were more likely to participate in the free screening program however when compared to those with higher levels of education, all other groups were more likely to be sustainers; though only high school graduates were significantly different. Employment status, having a regular physician or having a close acquaintance with prostate cancer does not significantly influence sustained participation in the free screening program. The most important reasons reported for participation the screening program were convenience and cost.

Conclusions: Demographic cannot be used as predictors for participation in a free prostate cancer screening program.

Introduction:

Prostate cancer is the most common cancer in American men and is now the second leading cause of cancer death in men, exceeded only by lung cancer.¹ It is estimated that in 2003, approximately 220,900 new cases and 28,900 prostate cancer related deaths will occur in the United States. Prostate cancer comprises approximately 30% of all cancer cases diagnosed among Native Americans and Asian Americans, 37% for Caucasians and Hispanics, and half of all cancers in African Americans.² A man's lifetime risk of developing prostate cancer is 1 in 6.

The natural history and pathophysiology of prostate cancer is not very well understood, although three main risk factors have been identified; age, race and family history.³ Prostate cancer is rare in men under age 50, but the incidence increases exponentially each decade thereafter. One's risk of developing prostate cancer increases with age such that men 39 years old or younger have less than a 1 in 10,000 chance, men 40-59 years old have a 1 in 55 chance and men 60-79 have a 1 in 7 chance in developing prostate cancer. In this older age category African American men have a 60% higher incidence of prostate cancer than Caucasian men.^{1,2,4,5} The age-adjusted incidence is higher in African American males (243.2 per 100,000) compared with white males (144.6 per 100,000).² African American males have a higher mortality from prostate cancer even after adjusting for access to care factors.^{5, 6}

Men with a family history of prostate cancer are at increased risk compared to men without a family history of the disease.¹ Non-hereditary familial clustering is estimated to account for 15-20% of prostate cancer cases. First-degree relatives of men with prostate

cancer have a threefold increased chance of developing it by age 70 compared to the average individual.²

Survival in men with prostate cancer is related to many factors, one of the most important being extension of the tumor beyond the prostate capsule at the time of diagnosis. The ten-year survival among men with cancer confined to the prostate is 75%, compared with 55 and 15% respectively, among those with regional extension and distant metastases.⁴ Therefore, a screening program for prostate cancer should ideally identify those men with more aggressive tumors that have not spread beyond the prostate capsule. One of the most controversial topics of discussion in prostate cancer has been regarding the efficacy of screening. The goal of screening is to detect disease early enough that intervention can be applied so as to reduce disease-related mortality,⁷ however this has not yet been proven in regards to the modalities used for prostate cancer screening. Digital rectal exam (DRE) and measurement of serum prostate specific antigen (PSA) are the most widely used screening tests for prostate cancer.⁴ A current review of the literature gives a very mixed picture in regards to the efficacy of prostate cancer screening, with some studies showing a beneficial impact of screening, where others do not.^{4,8,9,10,11,12,13}

Although mortality rates for prostate cancer in the United States have declined by 4.5% since the introduction of PSA testing in 1994,⁴ it is possible that screening programs are not solely responsible for this improvement. It is not certain whether lead time and length time biases may also account for some of these changes in survival. Alternative explanations such as improved treatment also cannot be ruled out. Other significant arguments against screening are centered on the issue of overdiagnosis; specifically the overdiagnosis of clinically insignificant prostate cancers, as prostate cancer is usually an

indolent disease and older men are more likely to die from some other cause.⁴ Similarly, a positive screening test may lead to large numbers of men having significant side effects, such as impotence or urinary incontinence, from therapy for prostate cancer with little or no benefit in cancer morbidity and mortality.

Given this ambiguous evidence and the significant burden of disease, current recommendations for DRE and PSA screening vary. The American Cancer Society recommends that both PSA testing and DRE be offered annually, beginning at age 50, to men who have at least a 10-year life expectancy. Men at high risk, such as African Americans, should begin testing at age 45. Men at even higher risk, due to multiple first-degree relatives affected at an early age, could begin testing at age 40.¹⁴ The American Urological Association recommends annual screening with PSA and digital rectal exam beginning at age 40 for African American men and those with a family history of the disease and age 50 for all other men,¹⁵ whereas the U S Preventive Services Task Force earlier this year changed their recommendations against screening to a rating of “I” – meaning there is insufficient to recommend for or against screening.¹⁶

Despite the variation in recommendations for screening, several researchers and clinicians believe there is benefit to screening at risk men, particularly African Americans and those with a family history of prostate cancer. However, many men in these high-risk categories, for a variety of reasons, do not participate in prostate cancer screening. Men who have been identified as least likely to participate in prostate cancer screenings are African American, 50-59 years of age, and socioeconomically disadvantaged.¹⁷ Attempts to explain this phenomenon have drawn upon the Health Belief Model for use as a conceptual framework. **Figure 1.**

The Health Belief Model as formulated by Rosenstock is a predictor of preventive health behavior. This model is based on values and expectations. It hypothesizes that people will generally not attempt to diagnose or prevent a condition unless they possess minimal levels of relevant health motivation and knowledge, perceive themselves as potentially vulnerable and the condition as threatening, are convinced of the efficacy of intervention, and see few difficulties in undertaking the recommended action.

Predictors of participation in health promoting behaviors such as cancer screening that have been documented in the literature include demographics and perceived benefits. Demographics include age, race and socioeconomic status. Increasing age has been shown to be a predictor of decreased participation in cancer screening. This observation is important in regards to prostate cancer, as it is known that the risk of developing prostate cancer increases with age. However Tingen et al and Weinrich et al have shown in their work that the opposite occurs with prostate cancer. Tingen has documented that men age 60 – 70 years old are more likely to participate in prostate cancer screening than men age 50 – 59 years old.^{19,20,21} Race is also a predictor of participation as it has been shown that white men are more likely to participate in prostate cancer screenings. This low participation among African Americans is of concern since African Americans have the highest incidence of prostate cancer in the United States, have higher rates of metastatic disease, and have decreased survival rates.^{1,2,19,20} Similarly, a 1986 report by the American Cancer Society demonstrated that socioeconomic status is an important predictor of

participation, with those earning more than \$50,000 per year being more like to participate in prostate cancer screening.^{19,20,21}

Perceived benefits are described as beliefs about the effectiveness of the recommended action in reducing the health threat.¹⁸ This variable has direct impact on whether or not one chooses to participate in screening. Important benefits that have been documented include “early detection”, “early treatment”, “know if I have cancer”, “know that I am well”, “so I can live longer”, “stop cancer from growing”, “learning the truth”.²⁰ Perceived benefits that are specific to African Americans include “prevention of illness” and “prevention of complications”.²² Also important to consider are specific motivators of health seeking behavior. Weinrich et al identified age, family history of prostate cancer, urinary symptoms and previous history of prostate cancer screening as motivators for participation in prostate cancer screening.²¹ For African Americans, Plowden et al identified resource availability and the influence of significant others such as family and friends to be external motivators. Internal motivators were identified as perceived disability and death from a disease and unrelieved symptoms. Specifically health seeking behavior was linked to perceived outcome of a specific event, i.e. disability or death.²² Nivens et al have also proposed that a relationship exists between overall exposure to prostate cancer information and prostate cancer screening. In this Cue to Participation in Prostate Cancer Screening Theory, Nivens suggests that men who recently have heard or read about prostate cancer screening are more likely to participate in screening.¹⁷

Barriers to prostate cancer screening is defined as a conflict between two opposing factors that prevents a behavior from occurring.²² Barriers as described by Weinrich et al include embarrassment, sexual difficulty as complication of surgery, mistrust, cost, concern

about abnormal test results or cancer, lack of knowledge of the health care system, not having a regular doctor, inconvenient doctors hours, lack of cultural sensitivity programs, and fatalism.²¹ Plowden et al also described the following barriers, which are of particular importance among African Americans: lack of resources – money for special diets or facilities that provide primary prevention interventions, transportation, inconvenient office hours, limited knowledge of the health issues affecting African American men and community based resources available to respond to those health issues, and perceived lack of sensitivity and understanding by health care providers.²² Myers et al also described several barriers to follow-up of abnormal prostate cancer screening results. These barriers included concern about physical discomfort, time involved in going for further testing, worry that further testing would cause health problems or that further testing may find prostate cancer and concern that further testing would upset family members.⁶

These studies and many others have attempted to evaluate predictors for participation in prostate cancer screening, however, most of these studies have involved asking men of their intent to participate in screening.^{19,20,21,22,23,24} Because a self-reported expression of intent to have a screening exam has not been correlated with actual behavior¹⁸, the study presented in this article will attempt to determine the predictors, motivators and barriers of participation in men who are actively participating in screening. Men who participated in a free prostate cancer screening program were given surveys to complete while at the screening site, demographic information was collected as well as information on the reasons the men chose to participate in a free screening program.

Methods:

This is the first part of a larger case – control study whose overall objective is to determine factors associated with regular participation of prostate cancer screening among high-risk men. The purpose of this work is to identify facilitators and barriers to PSA and DRE prostate cancer screening among men in a southeastern city. Participants in the study come from a free prostate cancer screening database. The men volunteered for prostate cancer screening at an annual free screening program conducted at both a major academic health system and a community health center in one southeastern city during the time period from 1998 – 2001. Participants volunteered for screening on at least one occasion during the study period. Demographic data was collected from all screening participants at the time of screening and entered into a database. Data includes: date of birth, race, educational attainment, employment, acquaintance with someone who has prostate cancer, having a regular physician and PSA value. The participants were also asked to write in the most important reason they chose to participate in a free prostate cancer screening program. This researcher then organized these reasons into the following categories based on the 1997 pilot study and facilitators described by Weinrich et al: (A) I believe at my age I should get the digital rectal exam and PSA blood test done each year, (B) The free prostate cancer screening program is convenient, (C) I believe in protecting my health, (D) My doctor encouraged me to be screened, (E) If I had signs of prostate cancer I want to find out early so treatment decisions can be made early, (F) My wife, family member or someone else close to me encouraged me to be screened, (G) I believe that I am in control of what happens to my health, (H) Getting prostate cancer screening gives me peace of mind, and (I) Other. This information will be used to determine predictors and motivators for participation in free

screening programs. Analysis of the questionnaires will focus on identifying facilitators and barriers for men who are non-sustainers, and how they compare to sustainers. Sustainers are men who participated in the screening program two or more years. Non-sustainers are identified as men who participated in screening one year, but did not participate in subsequent years. For example, a non-sustainer is one who participated in the free screening program in 1998, but did not return for screening in 1999, 2000 or 2001.

Data was entered and validated by this researcher and analyzed by SAS 8.2. The analysis includes descriptive statistics and logistic regression. The purpose of the logistic regression model is to determine if participant demographics have a predictive effect on the primary outcome. The primary outcome examined in this study was sustained participation of an annual free prostate cancer screening for two or more years. The variables for the model are the baseline demographic variables of the participants collected at the time of initial presentation in the free screening program. There are eight variables entered in the model; age, race, education, employment, physician, family/friend (with prostate cancer), reason for participation, and PSA. All variables are categorical; physician and family/friend are dichotomized. Comparison is made of the characteristics of sustainers and non-sustainers in free prostate cancer screening programs.

Results:

There were 1024 participants in the free prostate cancer screening program between 1998 and 2001. **Table 1.** Forty four percent (n=454) of participants self-identified as Black/African American and 51% (n=524) described themselves as White. Participants were generally between the ages of 50-59, 36% (n=333), at the time of their initial screening. Most participants of the program were well educated with 55% (n=513) having some college education or more. An additional 19% (n=175) and 16% (n=152) graduated high school and attended technical school, respectively. Fifty nine percent (n=530) were employed and 36% (n=322) were retired. African Americans were of approximately the same age and educational level as whites. Of those with a high school education, 49% were African American and 47% were White. Within the 50-59 age category, 51% were White and 45% were African American. The majority of participants had a regular physician, 68% (n=626) and most did not have someone close to them with prostate cancer, 58% (n=546). Ninety-two percent (n=931) of participants had a normal PSA value (less than 4ng/ml) at the time of the initial screening. In summary the average participant was aged 50-59, employed, had some college or more of education and had a regular physician.

Thirty-six percent (n=364) were identified as sustainers of the screening program. **Table 2.** Whites were more likely than Blacks to be sustainers, however this was not significant; OR=1.079 (CI 0.831- 1.401). Hispanics and Asians (referent group) were significantly less likely to be sustainers, OR 0.344 (CI 0.150 – 0.790). In a comparison of all age groups, with those under the age of 40 used as the referent group, age was not found to significantly influence sustaining in the program. Those with a high school or technical school education were more likely to sustain than those with less than a high school

education, and those with some college education or more (referent group) were less likely to sustain than those with less than a high school education. These results, however, were not significant. Those with some college education or more were more likely to participate in the free screening program, however when compared to those with higher levels of education, all other educational groups were more likely to be sustainers; though only high school graduates were significantly different, OR 1.501 (CI 1.054 – 2.138).

In the under 40 age category participants were most likely to be Black. All of the Black participants in this age category had some college education or more. Participation among Blacks decreased with age, whereas participation increased with age among Whites.

Graph 1. Retirees and the disabled were more likely than employed people to be sustainers, but this was not significant. Having a regular physician or having a close acquaintance with prostate cancer does not significantly impact whether one will have sustained participation in a free prostate cancer screening program. A PSA value between 4ng/ml and 10 ng/ml was shown to significantly influence sustaining in the free screening program; OR 0.526 (CI 0.291 – 0.949). A logistic regression model was done as an exploratory analysis. This was done to determine if any of the baseline demographic variables had an effect on sustaining in the free screening program for this dataset. After controlling for race and education among the educational categories, graduating from high school continued to significantly influence sustaining in the program; $p < 0.020$. At an $\alpha = 0.05$ significance level, controlling for all variables, only education was found to have an a significant effect on sustaining; $p < 0.0317$. The most important reasons reported for participation in the free prostate cancer screening program were convenience and cost. **Table 3.**

Discussion:

Consistent with the literature, this study found that whites, 50-59 years old, and with higher levels of education are active participants of prostate cancer screening. However, the literature to date has suggested that African Americans, 50-59, were least likely to participate in screening. This study, to the contrary, demonstrated a participation rate of 44% among Blacks compared to 51% for whites. Blacks were of approximately the same age and educational level as whites. It is difficult to pinpoint what may have attributed to the excellent rate of participation among blacks, but advertisement of the screening program may well have played a contributory role. Advertisement for this free screening was broad based and involved newspaper, radio, mailed postcards and neighborhood flyers. Other studies have shown that whites are most likely to hear of screening programs through newspapers and blacks through the radio. Many participants in our study also reported they received a postcard in the mail. Further research needs to be done to assess whether personalized recruitment (i.e. postcard in the mail) rather than mass recruitment is a motivator for participation among blacks.

The most interesting finding of this study was that participation decreases with age among blacks, but increases with age among whites. Prior research reports that increasing age is a predictor for decreased participation in cancer screening. However, Tingen et al revealed that among 60-70 year olds there was an increase in participation as compared to 50-59 year olds.¹⁹ Additionally, previous studies in this region have shown no significant difference in perception of risk for prostate cancer between blacks and whites, with both groups reporting their risk as the “same as the average man”, and similarly black men reported that they perceived the benefit of going for screening at a level similar to that of

white men.^{25, 26} However, other studies have shown that blacks were significantly less likely to be knowledgeable of prostate cancer risk factors, including race and family history.^{26,27} Although no significant difference was found between education level and race, or education and age, we did not assess the prostate cancer risk factor knowledge among participants. We did note however that younger African American participants were more highly educated, specifically all of the African American men in the under 40 age group had graduate or professional education. We hypothesize that the younger black participants have an increased knowledge base of prostate cancer risk factors and perhaps represents a new cohort of African American participants. This group of men could also represent the phenomenon seen in many primary care settings of the “worried well”. These are individuals who are in good health and are at low risk for certain disease entities, yet insist upon being screened or tested for these diseases. It will be of interest to see whether this trend of increased participation continues over time as this group of men ages to the appropriate screening age.

This study also found that education was significant predictor for sustained participation in the free screening program. Education often serves a proxy for certain factors related to health behaviors. In this case education may serve as a proxy for literacy and one’s ability to understand the controversies surrounding prostate cancer screening such that one is able to make an informed decision. Or it may serve as a proxy for skill level and suggest employability and therefore indicate whether one is able to have health insurance and access to care. Additional research on predictors of health behaviors, especially among men, will help to determine which is at play when we say education has a significant effect on sustaining and how does one determine which is most influential.

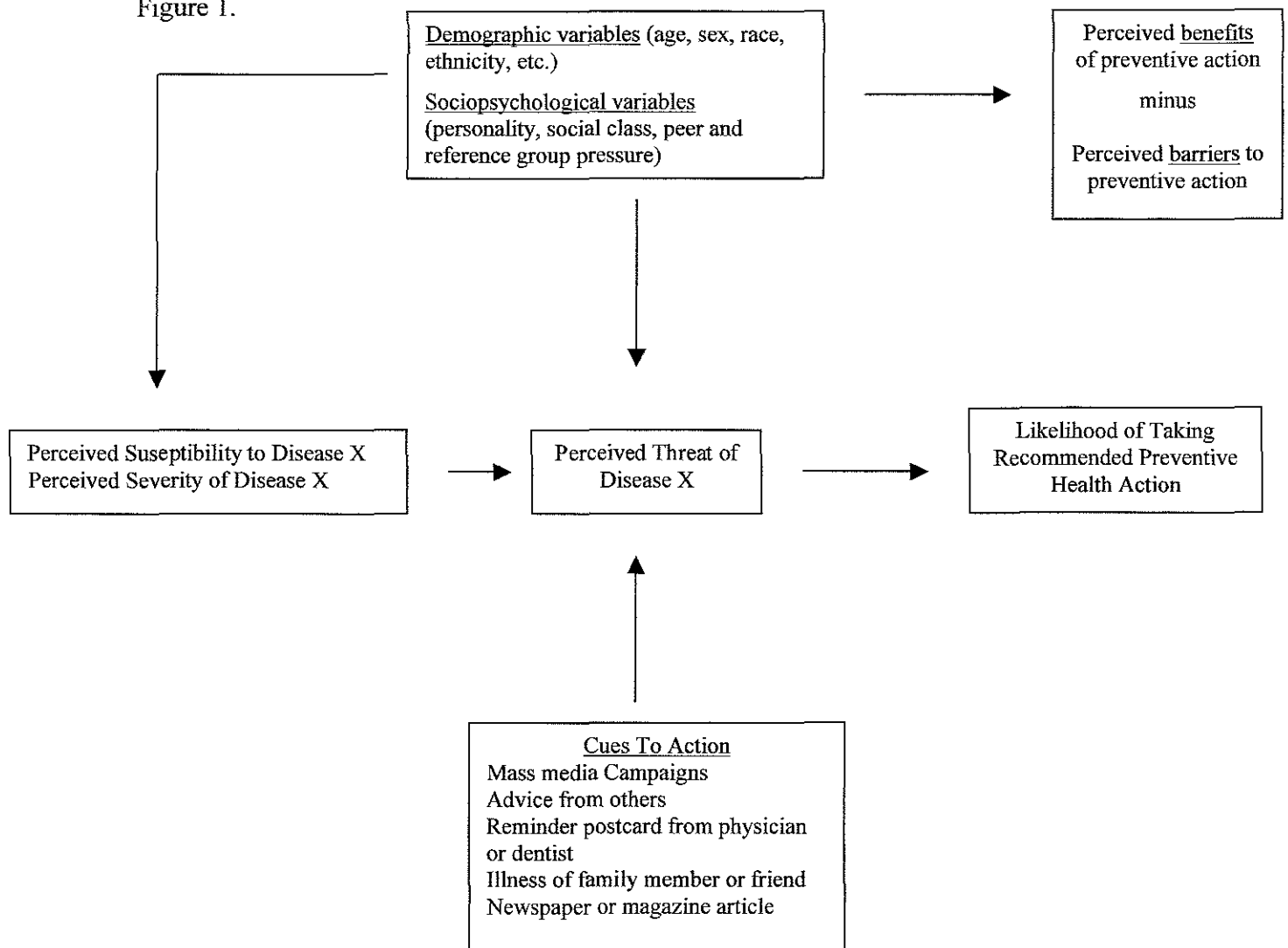
Based on education levels, employment status and number of participants reporting they have a regular physician, one would expect that the majority of these men have health insurance and therefore access to primary (preventive) health care services, yet the most common reason for participation in the prostate cancer screening program was because it was free. In prior research, the major barrier to participation in prostate cancer screening was cost.¹⁹ In another study of knowledge, attitude and beliefs about prostate cancer screening in African Americans, the authors found 88% if the subjects believed it would be best to participate in prostate cancer screening, with 80% agreeing to have annual screening provided it was free.²³ One hypothesis is that “free” carries additional value besides monetary. More work will have to be done to assess what connotation “free” carries in regards to the importance of health care services, but perhaps because health care services traditionally carry a cost, when it is offered to the public as free it implies some increased level of magnitude or consequence. In other words these men may think “health professionals must believe this disease is so significant that they offer a free screening to make sure I have access to it”.

Also important to get more understanding of is the reason that these highly educated men who seemingly have access to the health care system would choose to participate in mass prostate cancer screening, including both a DRE and PSA, rather than having these tests done in the privacy of their physician’s office. While little is known about the motivators for men in regards to participation in cancer screening, the participants in this study listed convenience high among their reason for participation. The men reported that they preferred not having to take off from work or make an appointment. There is conflicting data in the literature about the popularity of mass screenings; one study showed mass screening was

most popular among whites, whereas private appointment in a prostate cancer-screening program was the preferred method for blacks. To some extent there is also a certain degree of anonymity when one participates in a mass screening program, conceivably this as well may be a motivating factor for men.

Limitations of this study include that is the study was conducted in one single geographic location. It may be difficult to generalize the results of this study to other areas in the United States. Similarly, the study involves a self-selected population of men who chose to attend prostate cancer screening events. Our results are encouraging however, because this region is known to have one of the highest prostate cancer rates in the nation and the fact that we had such a high participation rate among African Americans suggests that these men are becoming more knowledgeable about their risk factors. Also the fact that demographics were not predictors of sustained participation suggests that participation cannot be attributed to race or socioeconomic status alone. Helpful information will gathered in the remainder of this study that addresses barriers to participation among those who did not sustain in the program. Another limitation is that information obtained was by self-report and thus there is not way to validate the accuracy of the information collected. And finally, participants came to this event because it was free and convenient. As of now there is no information collected on how the men are following up if they have an abnormal result. If cost is a primary motivator of participation it is prudent that follow up care is also free and convenient.

Figure 1.



The Health Belief Model

Table 1.

Characteristics	White	African American	Other
Age			
≥80	66.67%	33.33%	0%
70-79	73.05%	25.53%	1.42%
60-69	57.08%	38.05%	4.87%
50-59	51.35%	45.05%	3.6%
40-49	61.71%	33.71%	4.57%
<40	85.71%	7.14%	7.14%
Education			
< High School	36.71%	56.96%	6.33%
High School Graduate	47.93%	49.11%	2.96%
Technical School	40.41%	56.85%	2.73%
Some college or more	59.63%	36.51%	3.86%
Employment			
Retired	59.87%	37.83%	2.3%
Disabled	38.46%	61.54%	0%
Unemployed	54.17%	33.33%	12.5%
Employed	48.34%	47.36%	4.31%
Physician			
Yes	55.72%	41.63%	2.65%
No	44.13%	49.82%	6.05%
Family/Friend			
Yes	53.91%	43.94%	2.16%
No	50.19%	45.25%	4.56%

Table 2.

	Sustainers N*=364	Non – Sustainers N*=660	OR (95 % CI)	Adjusted OR† (95% CI)
Age	n*=358	n*=574		
≥80	3.63 %	2.44 %	2.32 (0.76 – 7.08)	1.68 (0.43 – 6.64)
70-79	15.64 %	14.81 %	1.65 (0.68 – 3.99)	1.30 (0.44 – 3.83)
60-69	29.05 %	21.43 %	2.11 (0.89 – 4.99)	1.38 (0.51 – 3.75)
50-59	32.68 %	37.63 %	1.35 (0.58 – 3.17)	0.96 (0.37 – 2.50)
40-49	16.76 %	20.21 %	1.29 (0.53 – 3.11)	0.91 (0.34 – 2.44)
<40	2.23 %	3.48 %		
Race	n=357	n=573		
White	53.50 %	50.79 %	2.65 (1.12 – 6.13)	2.98 (0.98 – 8.94)*
Black	44.54 %	44.33 %	2.50 (1.06 – 5.87)	2.85 (0.95 – 8.59)*
Other	1.96 %	4.89 %		
Education	n=323	n=566		
< High School	9.60 %	8.48 %	1.32 (0.81 – 2.16)	1.08 (0.59 – 1.96)
High School Graduate	21.98 %	17.31 %	1.49 (1.04 – 2.13)	1.75 (1.17 – 2.64)*
Technical School	18.27 %	15.55 %	1.37 (0.94 – 2.01)	1.62 (1.05 – 2.50)
Some college or more	50.15 %	58.66 %		
Employment	n=317	n=587		
Retired	39.12 %	33.73 %	1.24 (0.92 – 1.65)	1.03 (0.67 – 1.59)
Disabled	3.15 %	2.73 %	1.24 (0.55 – 2.78)	0.86 (0.35 – 2.13)
Unemployed	1.58 %	3.58 %	0.47 (0.18 – 1.27)	0.58 (0.18 – 1.82)
Employed	56.15 %	59.97 %		
Physician	n=327	n=595		
Yes	71.56 %	65.88 %	1.30 (0.97 – 1.75)	1.16 (0.82 – 1.64)
No	28.44 %	34.12 %		
Family/Friend				
Yes	45.37 %	39.50 %	1.27 (0.97 – 1.67)	1.30 (0.96 – 1.78)*
No	54.63 %	60.50 %		
PSA	n=356	n=660		
>10	1.97 %	1.82 %	1.04 (0.41 – 2.67)	0.562 (0.16 – 1.95)
4-10	4.21 %	7.73 %	0.53 (0.29 – 0.95)	0.340 (0.16 – 0.71)
<4	93.82 %	90.45 %		

N differs from n at each variable because not all participants responded to that question

† Each factor is adjusted for all other factors: age, race, education, employment, physician, family/friend, reason and PSA

* p< 0.1

Table 3.

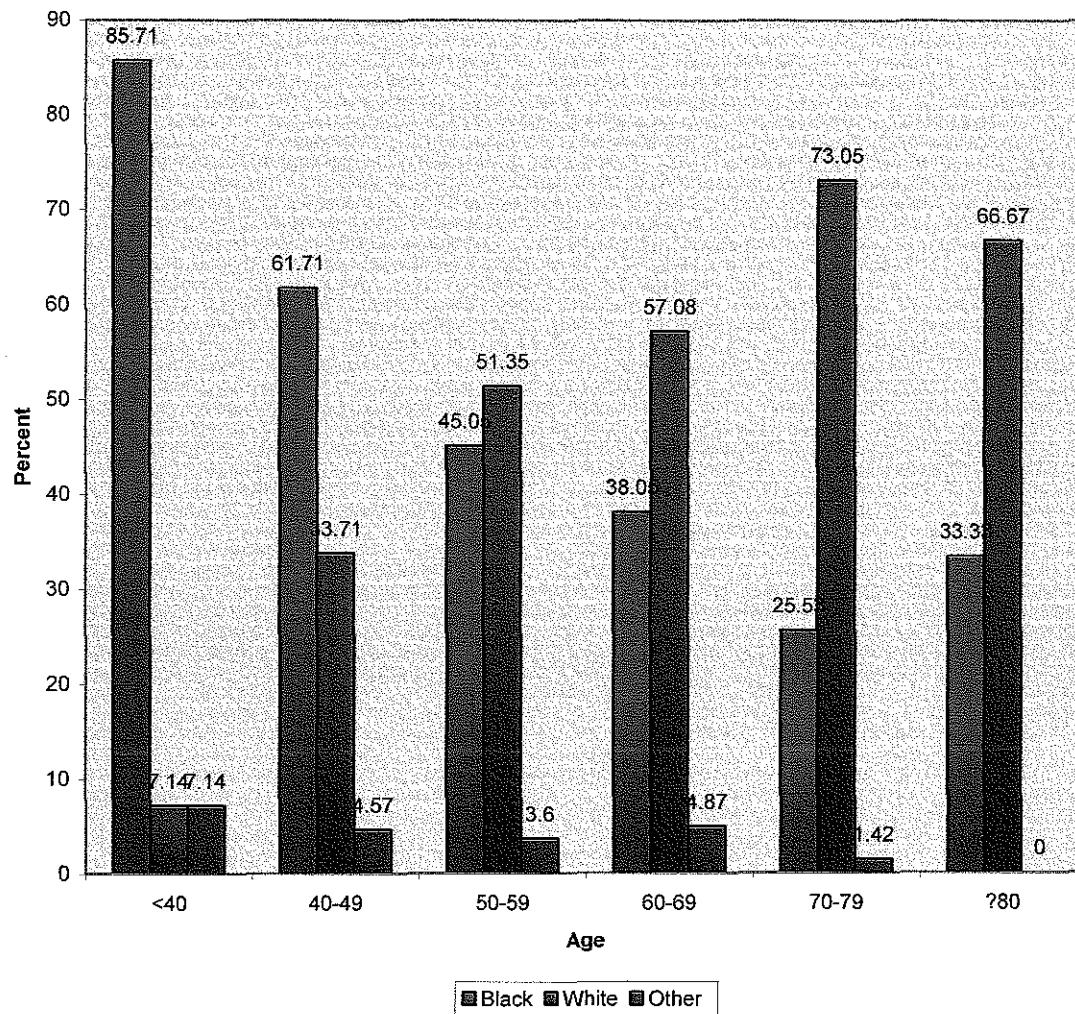
Other Important Reasons for Participation in the Free Prostate Cancer Screening Program

Reason for participation	Frequency
Free/Insurance/Financial	368
Participated in this screening program in the past	115
Heard about program/Received flyer in the mail	66
Time for a “check up”	53
Cancer center reputation	53
Second opinion/additional check	48
No regular doctor	31
Urological Symptoms	20
Family history/Know someone with prostate cancer	16
Regular Doctor does not recommend screening	15
To learn more information about prostate cancer	12
Regular doctor unavailable/schedule conflict	12
PSA test (blood work)	9
Never screened before	7
Doctors here are more knowledgeable than personal doctor	3
Volunteer in screening program	2
Previous diagnosis of prostate disease	2
Did not know which urologist to go to	1
PSA results confusing	1
Less embarrassing	1
Free screening program will be more truthful	1
Community committed to the health of its citizens	1
More comfortable	1
Hesitant to see regular doctor	1
Enjoy fellowship with friends	1
No Urologist	1
AARP	1
Support the Cause	1

These reasons were written in by participants at the time of screening – includes reasons from all visits not just baseline.

Graph 1.

Age Distribution of Participants in Free Prostate Screening Program by Race



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